



Matcohm Ave SE

Matcohm Ave SE

Matcohm Ave SE

SE 5th St

SE 5th St

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SE 5th St

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SE 5th St

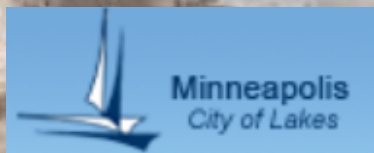
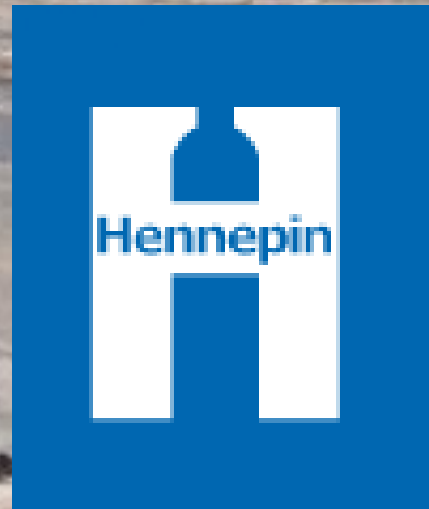


# SURLY Brownfield Redevelopment

Richard Manser, Barr Engineering

March 25, 2015

grants







★ you are here

Malcolm Ave SE

Malcolm Ave SE

Malcolm Ave SE

SE 5th St

SE 5th St

SE 5th St

SE 5th St

SE 5th St

SE 5th St

SE 5th St







Report a problem

10 / 2009





**concrete slabs and foundations**

**8 / 2012**





# site history



1956





# demolition and remediation



10 / 2013

## demolition and remediation



**8.32 acre site**

**2,000 tons concrete demo and debris disposal**

**20,000 tons contaminated soil**

**15,000 yd<sup>3</sup> demo crushing / backfill**

**40,000 tons select granular import**

**3,000 tons class 7 aggregate import**

**4 underground storage tanks / 30,500 gallon capacity**

**1 / 2014**

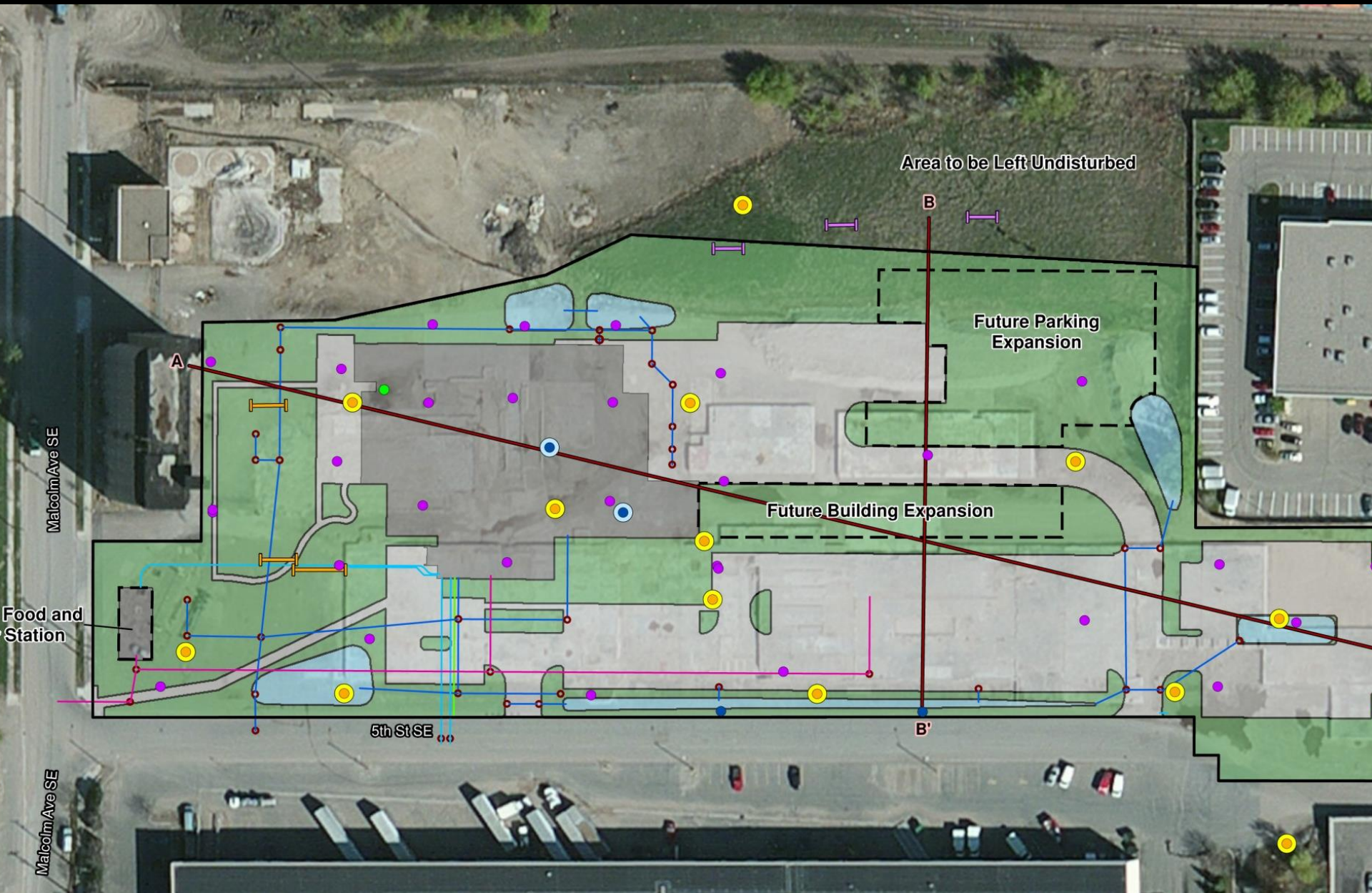
tanks



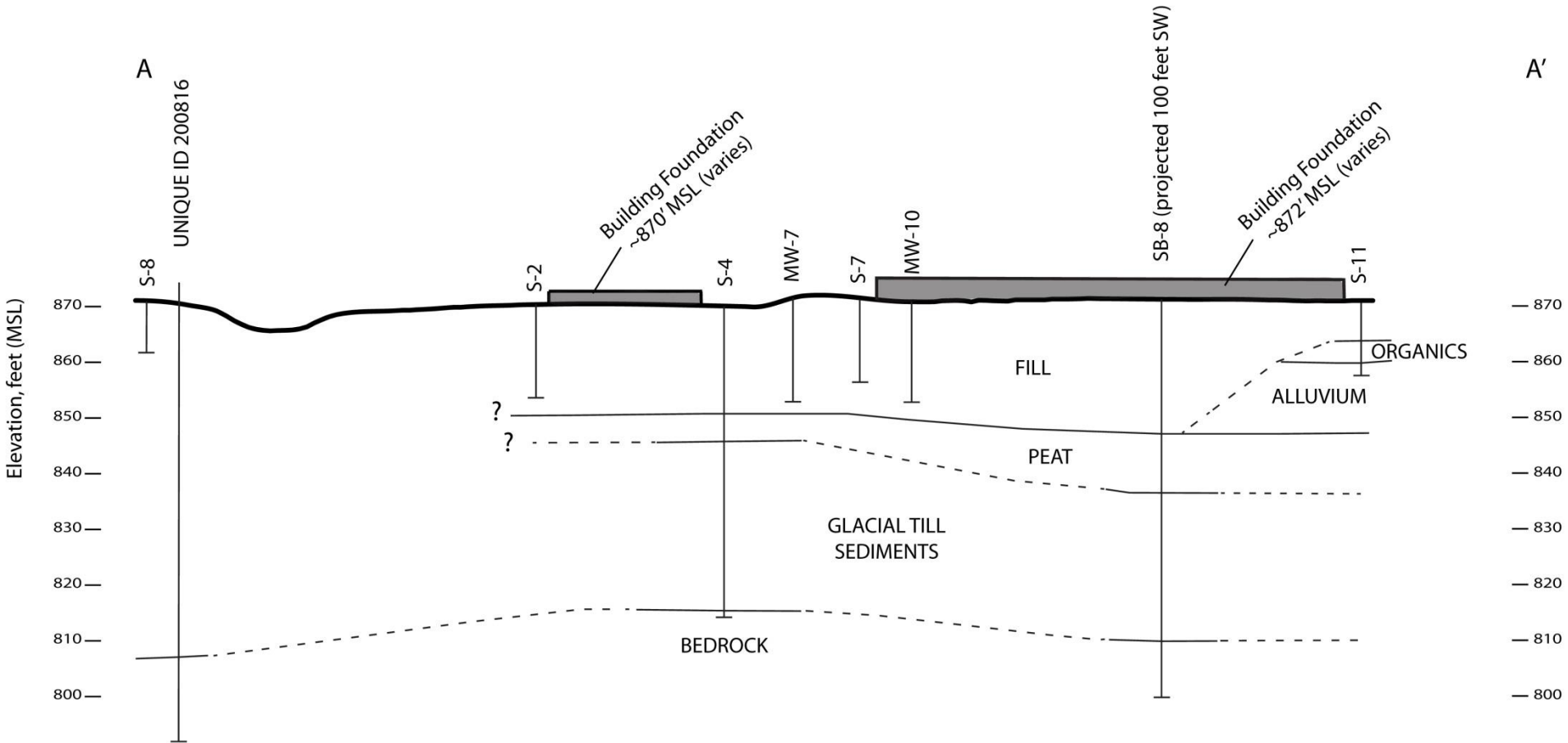
12 / 2013



# response action plan



# geotechnical challenges



pilings



12 / 2013



**pilings**



**01 / 2014**

# vapor mitigation



vapor mitigation



utilities



12 / 2013

storm water



## take aways



- plan on environmental
- incorporate environmental in land use planning
- over communicate
- risk evaluation
- contingencies
- strong team



team





**SURLY**  
BREWING CO